



August 17, 2005

**COMMENTS ON NOTICE OF INQUIRY (NOI) REGARDING RENEWABLE  
ENERGY PORTFOLIO STANDARD FOR BIOMASS POWER PLANTS ISSUED  
BY MASSACHUSETTS DOER AND DEP ON JULY 1, 2005**

Boralex wishes to thank the Massachusetts Division of Energy Resources (DOER) and the Massachusetts Department of Environmental Protection (DEP) for giving us the opportunity to submit comments on the Notice Of Inquiry (“NOI”) issued July 1, 2005 regarding proposed changes to the Renewable Energy Portfolio Standard for the Biomass Power Plants. Our comments will follow in three parts: 1) a brief description of Boralex and the role we play in biomass and other renewable power generation, 2) general comments regarding the role of biomass in the New England economy as well as the renewable economy, and 3) specific comments addressing the proposed revisions made in the NOI.

**1. A Description of Boralex**

Boralex focuses on four types of power generation: hydroelectric power, wood-residue power, wind power, and cogeneration power from natural gas. These are all fields where Boralex has developed an expertise and they are centered on renewable or clean energy technologies. Boralex employs more than 250 workers and owns seventeen power stations located in Quebec, United States, and France with an installed capacity of more than 250 MW. Boralex also owns an urban wood processing and recycling center in Montreal. In addition, Boralex holds a 23% interest in the Boralex Power Income Fund (the “Fund”). The Fund owns ten power stations in Quebec and the United States with a total installed capacity of 190 MW. Boralex provides management of the Fund’s assets.

Boralex is an important producer of wood-residue energy in North America, with five thermal power stations in Maine and New York State having a total installed capacity of 186 MW. In addition, on behalf of the Fund Boralex manages a thermal power station and a cogeneration plant in Quebec, both wood-residue fired, with an installed capacity of 62 MW. To provide a source of wood-residue supply for certain power stations it owns and operates, Boralex operates Secure Wood Chips L.P., a Quebec company that collects, sorts, and recycles urban waste wood. It also has long-term contracts with U.S. and Canadian wood-residue and urban wood producers.

**2. General Comments**

Existing power generation through the use of biomass fuel is beneficial to the environment and to society in many ways:

- One biomass power facility provides direct and indirect jobs for approximately 75 people. In general these existing facilities have been installed in strategic locations for wood fuel supplies and energy delivery and are located for the most part in rural areas of their states where employment opportunities are limited and the local economies are heavily dependent upon continued facility operations.
- These facilities are generally considered baseload resources for the power grid. At a minimum, they are on-demand resources – meaning that power can be delivered onto the system at the times when the system needs it most. Thus they are a stable source of energy, capacity, and grid VAR support. These attributes provide substantial benefit to the end users (customers) and to the grid itself.
- Efficient use of biomass from silvicultural activities enhances the global yield potential of our working forests by providing more effective regeneration opportunities.
- Efficient energy conversion of sawmill residues reduces the likelihood that these materials will contribute to contamination of surface and groundwater.
- Biomass power facilities are an efficient energy conversion of clean urban wood waste that would otherwise be disposed of in landfills and cause unnecessary environmental impacts associated with this disposal route.

In summary, existing biomass-fueled generation supplies reliable employment to areas with few alternatives, reliable on-demand generation to consumers with on-demand needs, and reliable renewable generation to a market that has been lacking the appropriate level of supply.

### **3. Specific Comments**

Boralex fully supports the general goal of the DOER and DEP toward revising 225 CMR to re-define “low-emission, advanced biomass power conversion technologies.” It is important for technological advances in stoker combustion to be recognized and for the approval process to be streamlined and transparent.

#### **Comments to Proposed Revisions**

1. Boralex supports the beneficial use of urban wood waste, including construction and demolition materials for energy production. Thus, Boralex supports the proposal to explicitly include C&D as an eligible fuel source. However, Boralex believes that utilization of this material must include quality control safeguards against substances at concentrations hazardous to public health and mandates for contaminant removal prior to delivery at any power generation facility whose permits authorize its use.

2.(a) Boralex fully supports the deletion of the categorical exclusion of stoker combustion technologies. Boralex concurs with the DOER that there be no bias against this type of

technology, provided it meets the dual objective criteria of “advanced” and “low-emission.”

2.(b) Boralex believes that the Net Heat Rate standard has promise in concept, but we have concerns about its practical implementation and the use of multiple technology-specific standards. First, Boralex disagrees with the concept of using separate net heat rate (or other “advanced” criteria) standards for fluidized bed configurations and non-fluidized bed configurations. In the spirit of section 2.(a) of the proposed revisions, all technologies should be held to the same unbiased efficiency standard. Furthermore, the standards currently proposed for non-fluidized bed technologies are unattainable. With this in mind, Boralex proposes to condense Table 1 in the NOI to one row, where the net heat rate standards for all technology classes will be the values currently assigned to fluidized bed technology.<sup>1</sup> Second, measurement of heat rate would be difficult due to the variations of moisture in the fuel. Boralex suggests that the DOER and DEP provide a detailed account of the methodology to be used or to use an alternative approach with more determinable results. If net heat rate is kept as the standard, at a minimum measurements should be averaged over the course of a year to minimize seasonal effects of moisture on results. Regardless of the specific criteria selected to fulfill the “advanced” standard, the standard should be applied transparently and identically across biomass technology types to encourage the development of efficient new technologies and to help mitigate investment uncertainties.

2.(c) Boralex supports the concept of utilizing transparent emission goals for biomass generation in order to fulfill the “low-emission” standard. With regard to the standards themselves, Boralex believes that the targets listed in table 2 are achievable with Stoker-fired facilities retrofitted with most recent emission reduction technologies. Boralex supports the application of the criteria in table 2 for the RPS definition of “low emission.” Additionally, we would like to point out that these targets are *not* technologically achievable with fluidized bed<sup>2</sup> technology alone. Further, we are certain that the limitations shown in table 3 are not achievable with any existing technology.

Other questions regarding the emissions monitoring process come to mind, specifically the rules for compliance and merging the needs of the Massachusetts RPS with the needs of individual air permits with respect to monitoring rules. Specifically Boralex recommends that the DOER and DEP adhere the RPS emissions monitoring procedures to the existing procedures provided in each facility’s air permit. The target criteria values would remain as listed in table 2, but the monitoring guidelines would be the same as those that the facilities are currently obliged to follow in their air permits.<sup>3</sup> This will minimize the burden of potentially overlapping testing for the facilities while keeping the high procedural standards that are already in place.

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<sup>1</sup> 14,500 Btu/kWh for capacity > 25MW, 16,000 Btu/kWh for between 10 MW and 25 MW and 19,000 Btu/kWh for between 1 MW and 10 MW

<sup>2</sup> which is considered an “advanced” technology today.

<sup>3</sup> This includes, but is not limited to: monitoring frequency, rules for retesting, and exemptions during exceptional situations (such as start-up, shut-down, and malfunction).

3.(b) Boralex is opposed to the proposed 36 month time limit for retrofitted plants. In a continuation of the concept of unbiased treatment of eligible facilities under 225 CMR, Boralex believes that this time limitation does not allow sufficient opportunity for cost recovery and is a hindrance to competition.

In proposing a time limitation on eligibility, the NOI states that the DOER and DEP intend to: “mitigate what may be an unfair competitive advantage over both new biomass plants and new plants that utilize other renewable resources and technologies.”<sup>4</sup> The NOI further shows concern over potential MA REC price declines due to biomass retrofit inclusion.<sup>5</sup> Boralex would like to represent that major conversion of existing biomass facilities to meet the “advanced” and “low-emission” standards is most certainly not a trivial task. It requires a substantially complex engineering design effort, large financial resources, and the willingness to take risks on the performance of recently-developed technology. Boralex disagrees with the assumption that a significant expansion of biomass-based REC supply and radically lower REC prices will occur. We disagree because any expectations of lower prices will discourage the development of the most risky or least efficient projects. In short, the invisible hand of the market will sort out the best projects from all types of renewable generation.

If a 36 month limit were introduced to only a portion of the potential REC supply market, there would not be ample time for cost recovery on any biomass retrofit projects, and the barrier-riddled supply side of the market would remain where it stands today while the demand increases every year.

As an alternative, Boralex proposes a plan with two distinct characteristics. The first is an 84 month (7 year) eligibility window for retrofit biomass facilities that conform to the “advanced” and “low-emission” criteria in effect at the time of application. The second characteristic is that at the end of the 84 month term, the facility has the opportunity to continue eligibility by complying with the prevailing advanced and low-emission criteria in effect at the time of the proposed renewal. This continuing eligibility could be renewed at 36 month intervals, always using the most up-to date emission and efficiency criteria at the time of renewal. Given the desire of DOER and DEP to have the ability to periodically modify the RPS standards in the future to keep pace with technology improvements<sup>6</sup>, any retrofitted biomass facility that can demonstrate compliance with newer (and presumably tighter) standards would continue to be qualified as a renewable resource in the Massachusetts RPS. This approach serves 3 goals: to restrict unlimited RPS market access to retrofitted biomass facilities, to allow a sufficient time horizon to recover costs of the technology investment, and to create incentives for these facilities to continually improve efficiency and emission criteria with the latest technologies.

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<sup>4</sup> NOI, p. 14, paragraph 1.

<sup>5</sup> NOI p. 6, paragraph 3.

<sup>6</sup> NOI, p. 13, paragraph 6.

Boralex would once again like to thank the DOER and DEP for the opportunity to provide comments on this very important step towards a transparent and consistent RPS design.

Sincerely,

A handwritten signature in black ink, appearing to read "Claude Audet", with a long horizontal flourish extending to the right.

Claude Audet  
President and COO  
Boralex, Inc.